

**ABSTRACT OF THE DISCLOSURE**

The grid falling film devolatilizer according to this invention consists of a tower housing, a liquid distributor and a tower internal, said tower internal includes pillars and multiple grid trays, the cross section of said tower internal being square or rectangular, and the four pillars stand respectively at the four corners of the tower internal. Each grid tray includes a pair of beams, a plural of grid bars and corresponding guide members, among them said beams being located at opposite pair of sides of the grid tray and fixed to the pillars, said grid bars being perpendicular to the beams, and said guide member being installed between the grid gaps, so that the liquid pass through those grid gaps and generate films and thus producing huge devolatilization interfaces. The special design according to the invention ensures the substantial renewal of film surface in each grid tray. In view of the simple structure, high devolatilization efficiency, and high operation flexibility, as well as the low cost of fabrication and operation, the grid falling film devolatilizer can be used in a variety of devolatilization units in chemicals production.